



Docket No.: 11111/2002
Date of Deposit: December 23, 2003

SEQUENCE LISTING

<110> Genitrix, LLC
Segal, Andrew H
Young, Elihu

<120> LECTIN COMPOSITIONS AND METHODS FOR MODULATING AN IMMUNE RESPONSE
TO AN ANTIGEN

<130> 11111/2002

<140> US 10/645,000

<141> 2003-08-20

<150> US 60/404,823

<151> 2002-08-20

<150> US 60/487,407

<151> 2003-07-15

<160> 32

<170> PatentIn version 3.2

<210> 1

<211> 11

<212> DNA

<213> Artificial Sequence

<220>

<223> Sequence motif: P sequence

<400> 1

cgaaaatttc c

11

<210> 2

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Linker sequence intended to lessen steric hindrance or other
undesirable interactions between first and second parts of the
multifunction molecule

<400> 2

Arg Ala Arg Asn Pro Arg Val Pro Val Ala Thr

1

5

10

<210> 3

<211> 5

<212> PRT

<213> Artificial Sequence

<220>
<223> Motif in the extracellular region, typical of type-1 cytokine receptors

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa can be any naturally occurring amino acid

<400> 3

Trp Ser Xaa Trp Ser
1 5

<210> 4
<211> 148
<212> DNA
<213> Artificial Sequence

<220>
<223> GTX-5

<220>
<221> misc_feature
<222> (1)..(1)
<223> 5' phosphate

<400> 4
aattccgcgc cggcacagtg ctcagagaca aactgggtcaa gtgtgagggc atcagcctgc 60
tggctcagaa cacctcgtgg ctgctgctgc tcctgctgtc cctctccctc ctccaggcca 120
cggatttcat gtcctgtga ctgggtac 148

<210> 5
<211> 140
<212> DNA
<213> Artificial Sequence

<220>
<223> GTX-6

<220>
<221> misc_feature
<222> (1)..(1)
<223> 5' phosphate

<400> 5
ccagtcacag ggacatgaaa tccgtggcct ggaggaggga gagggacagc aggagcagca 60
gcagccacga ggtgttctga gccagcaggc tgatgcctc acacttgacc agtttgtctc 120

tgagcactgt gccggcgcg

140

<210> 6
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Upstream primer for PCR amplification of GM-CSF coding sequence

<400> 6
ccgaattcat gtggctgcag aatttacttt tcctgggcat tgtggtctac 50

<210> 7
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Downstream primer for PCR amplification of GM-CSF coding sequence

<400> 7
cagccggctt tttggactgg ttttttgcag tcaaagggga tatcagtcag 50

<210> 8
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Upstream primer for PCR amplification of the 280 bp GPI
modification signal sequence from the yeast protein Gas1

<400> 8
gtagccggcg ctagctcggg gtcttcttcc aagtcta 37

<210> 9
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Downstream primer for PCR amplification of the 280 bp GPI
modification signal sequence from the yeast protein Gas1

<400> 9
tacggtaccc ctaggccaca atgaaataag ataccatacc 40

<210> 10
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Upstream primer for PCR amplification of GMCSF-Gas1 insert

<400> 10
tacggccggc acccaccgc tcaccc 26

<210> 11
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Downstream primer for PCR amplification of GMCSF-Gas1 insert

<400> 11
tacggccggc acaatgaaaa taagatacca t 31

<210> 12
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Upstream primer for PCR amplification of Human GM-CSF

<400> 12
gcgaatcccg gccggcacc gcccgctcgc ccagcccc 38

<210> 13
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Downstream primer for PCR amplification of Human GM-CSF

<400> 13
cagccggcct cctggactgg ctcccagcag tc 32

<210> 14
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Upstream primer for PCR to clone GM-CSF Gas1g into the pITY-4 expression vector

<400> 14
tacggccggc acccgccgc tcgcccagcc cc 32

<210> 15
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Downstream primer for PCR to clone GM-CSF Gas1g into the pITY-4
expression vector

<400> 15
tacggccgcc acaatgaaaa taagatacca t 31

<210> 16
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide for use in cloning of GM-CSF/Influenza
Hemagglutinin Chimeric Proteins

<400> 16
ccggcactag tggcggaggg ggctccggcg gcgggggcag cg 42

<210> 17
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide for use in cloning of GM-CSF/Influenza
Hemagglutinin Chimeric Proteins

<400> 17
ctagcgctgc ccccgccgcc ggcgccccct ccgccactag tg 42

<210> 18
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Amino acid sequence designed to insert a kink/spacer in the
protein between the GMCSF and the Gas1.1 moieties

<400> 18
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10

<210> 19
<211> 26
<212> DNA

<213> Artificial Sequence

<220>

<223> Upstream Primer for PCR of HA1

<400> 19

atgctagcga cacaatatgt ataggc

26

<210> 20

<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> Downstream Primer for PCR of HA1

<400> 20

atggtacccg gccgttatca tctggattga atggacgg

38

<210> 21

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Upstream primer for PCR of pUC19 GM-CSF-K-HA

<400> 21

tacggccggc acccaccgc tcaccc

26

<210> 22

<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> Downstream primer for PCR of pUC19 GM-CSF-K-HA

<400> 22

atggtacccg gccgttatca tctggattga atggacgg

38

<210> 23

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Upstream primer for cloning of HA-K sequence by PCR of the HA1 coding sequence from a plasmid encoding the HA gene of the A/PR/8/34 strain of influenza.

<400> 23

ctgaattccg gccggacaca atatgtatag gc

32

<210> 24
<211> 62
<212> DNA
<213> Artificial Sequence

<220>
<223> Downstream primer for cloning of HA-K sequence by PCR of the HA1 coding sequence from a plasmid encoding the HA gene of the A/PR/8/34 strain of influenza.

<400> 24
atggtaccgc tgcccccgcc gccggagccc cctccgccac ttctggattg aatggacgga 60
at 62

<210> 25
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Upstream primer for PCR cloning of GM-CSF fragment

<400> 25
acggtaccgc acccaccgc tcacccatc 29

<210> 26
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Upstream primer for PCR cloning of GM-CSF fragment

<400> 26
taggatcccg gccgtcattt ttggactggt tttttgcacg 40

<210> 27
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Upstream primer for PCR of pUC19 HA-K-GM-CSF

<400> 27
ctgaattccg gccggacaca atatgtatag gc 32

<210> 28
<211> 40
<212> DNA

<213> Artificial Sequence

<220>

<223> Downstream primer for PCR of pUC19 HA-K-GM-CSF

<400> 28

taggatcccg gccgtcattt ttggactggt tttttgcacg 40

<210> 29

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<223> Upstream hGM-CSF Primer

<400> 29

gcgaattccg gccggcaccc gcccgctcgc ccagc 35

<210> 30

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> Downstream hGM-CSF Primer

<400> 30

tagccggcct cctggactgg ctcccagca 29

<210> 31

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<223> Upstream primer for PCR of pUC19 hGM-CSF-K-HA

<400> 31

gcgaattccg gccggcaccc gcccgctcgc ccagc 35

<210> 32

<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> Downstream primer for PCR of pUC19 hGM-CSF-K-HA

<400> 32

atggtacccg gccgttatca tctggattga atggacgg 38